Abstract of the Invention

A leak collection chamber is provided inside the housing of a fuel dispenser. The leak collection chamber collects any leaked fuel from fuel handling components inside the fuel dispenser so that the fuel does not leak to the environment. The leak collection chamber can be removed form the fuel dispenser for evacuation. The control system inside the fuel dispenser can determine the liquid level inside the leak containment chamber and generate signals and alarms if the liquid level exceeds a threshold liquid level value and/or the rate of increase in liquid level exceeds a threshold liquid level increase value. The control system can alert service personnel and/or other systems of the leak collection chamber liquid level. Further, the control system and/or other systems shut down the submersible turbine pump that services the fuel dispenser with fuel in response to catastrophic leak condition.